

Attorney Docket No.: **DEX-0230**
Inventors: **Chen et al.**
Serial No.: **09/940,227**
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REMARKS

Claims 1 through 16 are pending in the instant application. Claims 1-8 and 11-16 have been withdrawn from consideration by the Examiner and subsequently canceled without prejudice by Applicants in this amendment. Claim 9 and 10 have been rejected. Claims 9 and 10 have been amended. New claim 17 has been added. Support for these amendments is provided in the specification at page 11, lines 19-21; page 39, line 10 through page 40, line 8; page 42, lines 10-16; and original claim 12, now canceled. No new matter is added by these amendments. Reconsideration is respectfully requested in light of these amendments and the following remarks.

I. Finality of Restriction Requirement

The Examiner has made final the Restriction Requirement mailed May 19, 2003. Accordingly, Applicants have canceled claims 1-8 and 11-16 without prejudice. Applicants reserve the right to file a divisional patent application to the canceled subject matter in light of the finality of the Restriction Requirement.

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II. Information Disclosure Statement

The dates for references AB and AC are as follows:
September 1, 1999 and August 4, 1999, respectively.

III. Rejection of Claims 9 and 10 under 35 U.S.C. § 112, second paragraph

Claims 9 and 10 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In particular, the Examiner suggests that claims 9 and 10 are indefinite for reciting "specifically binds a cancer cell expressing a polypeptide encoded by a LSG comprising SEQ ID NO:15" or "specifically binds a cancer cell expressing a LSG polypeptide comprising SEQ ID NO:83" because it is unclear from this phrase whether the antibody specifically binds the LSG polypeptide encoded by SEQ ID NO:15 or 83 and expressed by a cancer cell or binds some other antigen expressed by a cancer cell.

Accordingly, in an earnest effort to advance the prosecution of this case, Applicants have amended claim 9 to clarify that the antibody specifically binds a polypeptide encoded by SEQ ID NO:15

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which is differentially expressed in cancer cells. Applicants have amended claim 10 to clarify that the polypeptide can comprise SEQ ID NO:83. Support for this amendment can be found in the specification, for example, at pages 39-40 and page 42, lines 10-16.

Claim 9 is also suggested to be indefinite for reciting "a polypeptide encoded by a LSG comprising SEQ ID NO:15" because the Examiner suggests that it is unclear how many open reading frames SEQ ID NO:15 encodes. Applicants respectfully traverse this rejection.

As mandated by MPEP § 2173.02; definiteness of claim language must be analyzed, not in a vacuum, but in light of the content of the particular application; the teachings of the prior art; and the claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made. In the instant specification SEQ ID NO:83 is set forth as a polypeptide encoded by SEQ ID NO:15. Accordingly, the open reading frame of SEQ ID NO:15 is clear from teachings of the specification and further clarification in the claims is not required.

In an earnest effort to advance the prosecution, however, claim 10 has been amended, as discussed above to clarify that the

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polypeptide encoded by SEQ ID NO:15 can comprise SEQ ID NO:83.

Claims 9 and 10 are also suggested to be indefinite for reciting "Gene" because the Examiner suggests that the nucleic acid sequences taught in the specification are limited to the coding region and do not include other regions of a gene.

Accordingly, in an earnest effort to advance the prosecution of this case, Applicants have deleted this term from the claims.

Withdrawal of these rejections under 35 U.S.C. § 112, second paragraph, is respectfully requested in light of the amendments to the claims and the above remarks.

IV. Rejection of Claims 9 and 10 under 35 U.S.C. § 112, first paragraph - Written Description

Claims 9 and 10 have been rejected under 35 U.S.C. § 112, first paragraph as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The Examiner suggests that claims 9 and 10 are broadly drawn to a large genus of nucleic acid molecules and members of the genus are variable because of the potentiality of the many different proteins that may encode.

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Applicants respectfully disagree.

Claim 9 of the instant application is drawn to an antibody which specifically binds a polypeptide encoded by SEQ ID NO: 15 while claim 10 is drawn to the antibody wherein the polypeptide comprises SEQ ID NO: 83. Accordingly, each of these claims are drawn to a specified nucleic or amino acid sequence, not a large genus of nucleic acid molecules as suggested by the Examiner.

Further, detailed teachings regarding antibodies which specifically bind an LSG such as a polypeptide encoded by SEQ ID NO:15 or SEQ ID NO:83 are set forth in the specification, for example, at pages 39-40 and page 42. These detailed teachings combined with the disclosure of SEQ ID NO: 15 and SEQ ID NO:83 provide sufficient, relevant and identifying characteristics so that as a person skilled in the art would recognize that the inventor has possession of the claimed antibodies.

Thus, withdrawal of this rejection under 35 U.S.C. § 112, first paragraph is respectfully requested.

V. Rejection of Claims 9 and 10 under 35 U.S.C. § 112, first paragraph - Lack of Enablement

Claims 9 and 10 have been rejected under 35 U.S.C. § 112, first paragraph. The Examiner has acknowledged the specification

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to be enabling for detecting differentially expressed mRNA of SEQ ID NO:15 in lung cancer cells. However, the Examiner suggests that the specification does not reasonably provide enablement for antibodies that bind a cancer cell expressing a lung specific gene polypeptide encoded by SEQ ID NO:15 or a cancer cell expressing a lung specific polypeptide as set forth in SEQ ID NO:83 or differentially expressed mRNA that encodes the polypeptide of SEQ ID NO:83.

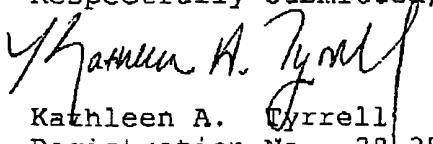
It is respectfully pointed out, however, that claim 9 has been amended and is now drawn to an antibody which specifically bind a polypeptide encoded by SEQ ID NO: 15 which is differentially expressed in cancer cells. Claim 10 is drawn to that antibody wherein the polypeptide comprises SEQ ID NO: 83. Support for this amendment is provided in the specification at page 39-40 and page 42, lines 10-16. Accordingly, the Examiner's concerns regarding expression of the polypeptide by the cancer cells and predictability of protein translation and use of these antibodies to bind cancer cells are no longer relevant. Since these concerns served as the basis for this rejection under 35 U.S.C. § 112, first paragraph, withdrawal of this rejection in light of the amendments to the claims is respectfully requested.

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VI. Conclusion

Applicants believe that the foregoing comprises a full and complete response to the Office Action of record. Accordingly, favorable reconsideration and subsequent allowance of the pending claims is earnestly solicited.

Respectfully submitted,


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